

Application No. 10/811,736
Amendment dated April 10, 2007
Reply to Office Action of January 26, 2007

Amendments to the Claims

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Currently amended) An airbag apparatus for a motorcycle having a steering handle, the airbag apparatus comprising:

an airbag for being inflated having a rear wall portion facing a driver of the motorcycle, an opposite front wall portion that faces away from the driver, and laterally facing opposite side wall portions generally extending between the front and rear wall portions;

a connecting member in the airbag for controlling inflation thereof in a predetermined manner;

predetermined airbag connecting locations at which the connecting member is attached to the airbag; and

an upper concavity in the rear wall portion, and intermediate height concavities in the opposite side wall portions with the upper concavity being higher than the intermediate height concavities so that the upper concavity is adapted to receive the driver and the intermediate height concavities are adapted to fit operating ends of the motorcycle handlebar therein upon airbag deployment and inflation during emergency conditions,

wherein the connecting member includes a plurality of divided members that are attached to the airbag at the airbag connecting locations and that are attached to each other at locations other than the airbag connecting locations.

2. (Previously presented) The airbag apparatus of claim 1 wherein the predetermined airbag connecting locations include one location at the rear wall portion facing the driver, and at least one other location that is displaced from the opposite front wall portion facing away from the driver.

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3. (Previously presented) The airbag apparatus of claim 1 wherein the connecting member includes a first connecting section that connects the lateral wall portions of the airbag, and a second connecting section that connects the first connecting section and the rear wall portion of the airbag facing the driver.

4. (Cancelled)

5. (Original) The airbag apparatus of claim 1 wherein the connecting member has a polygonal shape so that at least one of the airbag connecting locations is an apex of the polygonal connecting member.

6. (Original) The airbag apparatus of claim 5 wherein the polygonal shape comprises a triangle formed by the connecting member in the airbag.

7. (Original) The airbag apparatus of claim 6 wherein the airbag connecting locations are three apexes of the triangular shaped connecting member.

8. (Cancelled)

9. (Previously presented) The airbag apparatus of claim 1 in combination with the motorcycle.

10. (Currently amended) A motorcycle including an airbag apparatus, the motorcycle comprising:

handlebars having laterally spaced, operating end portions;
a seat for a driver rearwardly of the handlebars;

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an airbag of the airbag apparatus for being inflated between the seat and the handlebars;

a connecting member in the airbag for controlling inflation thereof in a predetermined manner;

a forward portion of the airbag that the connecting member allows to substantially freely inflate toward the handlebars;

a rearward portion of the airbag whose inflation toward the driver is regulated by the connecting member;

lateral side portions of the airbag generally extending between the forward and rearward portions thereof;

a rear concavity in the rearward portion of the inflated airbag configured for receiving a body portion of the driver; and

side concavities in the lateral side portions of the inflated airbag configured for fitting the corresponding ones of the handlebar operating end portions therein,

wherein the connecting member includes a plurality of divided members attached to each other at locations spaced from the airbag to allow the length of the connecting member to be adjusted so that the predetermined manner in which the connecting member controls airbag inflation is varied.

11. (Previously presented) The motorcycle of claim 10 wherein the rearward portion of the airbag includes a rear side that faces the driver upon airbag inflation, and the connecting member is attached to the rear side of the airbag rear portion to form the rear concavity in the rear side adapted to receive a body portion of the driver upon occurrence of a forward collision of the vehicle.

12. (Previously presented) An airbag apparatus for a motorcycle having a seat for a driver rearwardly of handlebars, the airbag apparatus comprising:

an airbag for being inflated between the seat and the handlebars;

a connecting member in the airbag for controlling inflation thereof in a predetermined manner;

a forward portion of the airbag that the connecting member allows to substantially freely inflate toward the handlebars; and

a rearward portion of the airbag whose inflation toward the driver is regulated by the connecting member,

wherein the rearward portion of the airbag includes a rear side that faces the driver upon airbag inflation, and the connecting member is attached to the rear side of the airbag rear portion to form a concavity in the rear side adapted to receive a body portion of the driver upon occurrence of a forward collision of the vehicle, and the connecting member is attached at three locations along the rear side to form three corresponding concavities therein with a central cavity for receiving the drivers head, and a cavity on each side of the central cavity for receiving the shoulders or chest of the driver.

13. (Previously presented) The motorcycle of claim 10 wherein the connecting member is attached at predetermined locations to the airbag such that the airbag front portion is sized to fit between the laterally spaced end portions of the motorcycle handlebars.

14. (Previously presented) The motorcycle of claim 13 wherein the predetermined locations are at either lateral side of the airbag generally intermediate the front and rear portions thereof.

15. (Previously presented) The motorcycle of claim 14 wherein the airbag includes the side concavities at the predetermined locations adapted for fitting the end portions of the handlebars therein.

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16. (Previously presented) The motorcycle of claim 14 wherein the connecting member includes a section thereof that extends linearly between the predetermined side locations with the connecting member section sized to approximate the lateral spacing between the end portions of the handlebars.
17. (Previously presented) The motorcycle of claim 10 wherein the connecting member extends linearly generally normal to a fore and aft direction along the motorcycle to be connected at opposite lateral sides of the airbag to keep the inflated airbag stable in a lateral direction corresponding to the linearly extending connecting member as the driver engages the airbag during accident conditions.
18. (Cancelled)
19. (Cancelled)
20. (Cancelled)
21. (Cancelled)
22. (Cancelled)
23. (Previously added) The motorcycle of claim 10 wherein the rear concavity is higher along the inflated airbag than the side concavities.